

Microprocessor Module Replacement Kit for the MultiZone Remote Display (MZ-RD) Instruction Manual



1. Scope

The Bacharach Remote Display (for use with the MultiZone or MZ family of gas monitors) is designed for easy maintenance and enhancement. One element of that design is the ability to replace system programming (firmware) with a simple plug-in microprocessor module, minimizing downtime.

This instruction manual describes how to replace or upgrade the microprocessor module in your Remote Display. It is assumed that the user is familiar with the operation of the device. If necessary, refer to the instructions for detailed operation and maintenance information for your RD.

2. Items Required

- Replacement Microprocessor Module Kit (P/N: 3015-5580)

- Medium Phillips head screwdriver
- Medium standard slotted screwdriver
- Wrench for lock nut
- Original Remote Display instruction manual (optional)



WARNING: Failure to comply with these instructions may void the warranty.

3. Procedure Summary

All system settings and configuration settings are returned to factory default values after this upgrade. You may choose to manually record your system settings and configuration values (e.g., communications parameters) *prior* to performing this upgrade, and then re-configure those settings afterwards to your desired values. After the upgrade you will also need to set the current date and time.

You will need to refer to the Remote Display Instruction Manual originally shipped with your unit for detailed instructions on setting the date, time, and communications parameters. If you no longer have the manual that shipped with your device, the standard Remote Display manual may be downloaded from the Bacharach website at www.mybacharach.com. If you have any questions, you may contact Bacharach's Customer Service Department.



NOTE: Before you begin the microprocessor replacement process, be sure to manually record the values of any settings you wish to save, as all configured settings will be returned to their factory default values after the board is replaced. After the microprocessor module is replaced, you may reconfigure these settings.

4. Accessing and Removing the Old Microprocessor Board

To gain access to the microprocessor board follow the procedure below.

Items Required:

- Medium Phillips head screwdriver

Procedure:

1. Remove power from the Remote Display.
2. Remove 2 screws from the left side of the chassis to access the inside of the RD.
3. Dissipate any accumulated static charge by touching a grounded area of bare metal.



WARNING: Failure to touch a metal grounding area on the product can allow static electricity on your clothing or body to damage the monitor or modules. Such damage is not covered under warranty.

4. Locate the red microprocessor module, socketed on the main circuit board.

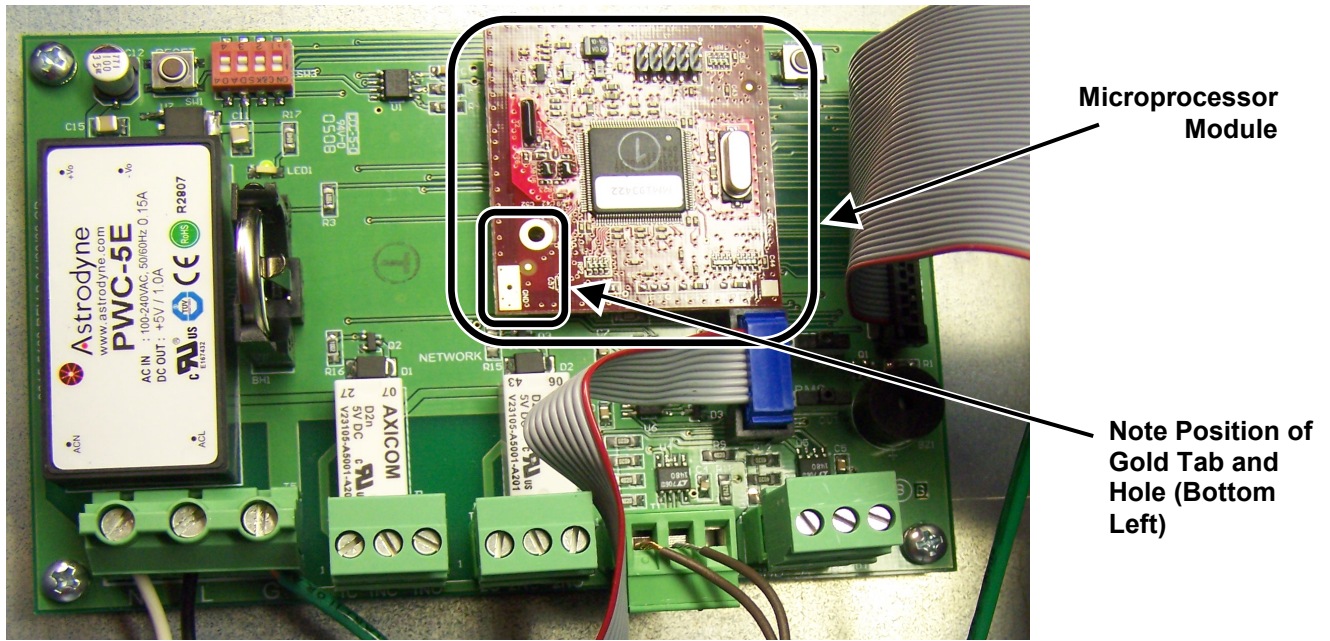


Figure 1. Location of Microprocessor Module Inside the PAGM Housing

5. Note the orientation of the module, specifically the gold tab and hole oriented on the bottom left of the board.
6. Grasp the left and right edges of the microprocessor module and gently pull straight out while rocking left to right, until it comes free of the socket.
7. Dispose of the removed microprocessor module in accordance with local regulations for electronic equipment.

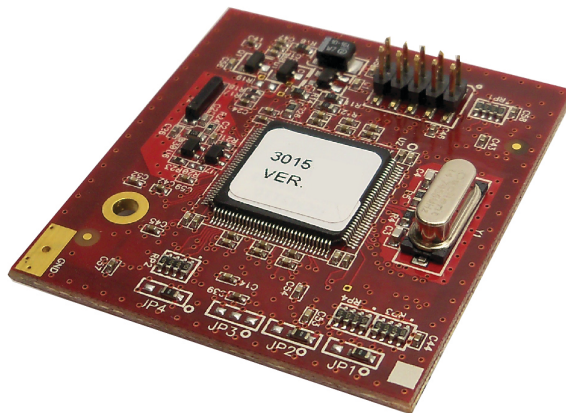


Figure 2. Microprocessor Module Removed from the RD's Main Board

5. Installing the New Microprocessor Module

Install the new microprocessor module by following the steps below. Depending on your hardware and the replacement kit that you receive, there are two different installation procedures. One method accommodates different hole sizes in the microprocessor board and the mother board, and uses two screws (0001-1552) and a female-threaded spacer (0304-8289). The other method accommodates the newer microprocessor board and mother board which have the same size holes, and uses a snap-in spacer (0304-8459). Follow the installation option that corresponds to the hardware that is supplied with your kit.

OPTION A: Threaded Spacer and Two Screws

1. Remove the main board from the enclosure by disconnecting all main board connectors, removing mounting screws, and carefully lifting the main board from the enclosure standoffs. (Note that this and other steps may not be required if your microprocessor board is already mounted as shown in Option A.)
2. Attach the threaded standoff to the top of main board by routing one of the screws up through the underside of the main board and securing it to the standoff. Use Figure 3 as a guide.
3. Remove the new microprocessor module from its packaging, handling the board by the edges only.
4. Orient the new microprocessor so the gold tab and hole are at the bottom left corner (refer to Figure 1).
5. Carefully align the two rows of pins on the back of the processor with the mating socket on the main circuit board in the RD, then carefully press the microprocessor module firmly into the socket.

NOTE As a guide, align the larger hole on the microprocessor module with hole in the standoff.

CAUTION Be sure not to skip or offset the pins to the socket.

6. Feed the second securing screw through the hole in the processor board into the top of the threaded standoff and secure it using the screwdriver. See the figure below.

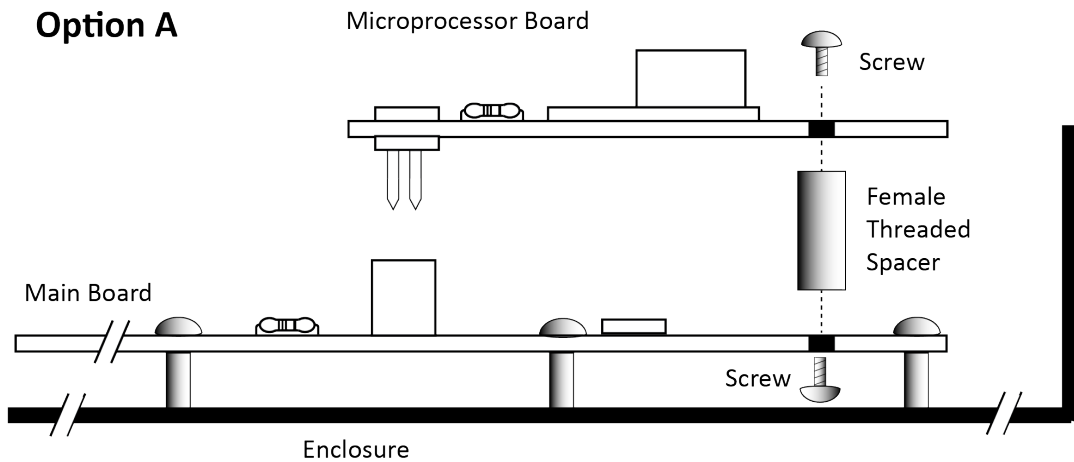


Figure 3. Option A Installation

7. Re-attach the main board to the enclosure by carefully placing the main board onto the enclosure standoffs and securing it with the screws removed earlier.
8. Reattach the main board connectors that you removed earlier.
9. Close the door to the RD and secure the two screws.
10. Apply power to the RD and verify that it performs its initialization procedure.
11. Continue with Section 6.

OPTION B: Snap-in Spacer

1. Insert the plastic snap-in spacer into the securing hole on the mother board. See figure below.
2. Remove the new microprocessor module from its packaging, being careful to handle the board by the edges only.
3. Orient the new microprocessor so the gold tab and hole are at the bottom left corner.
4. Carefully align the two rows of pins on the back of the processor with the mating socket on the main circuit board of the Remote Display, while simultaneously aligning the snap tab on the spacer with the hole in the microprocessor board.

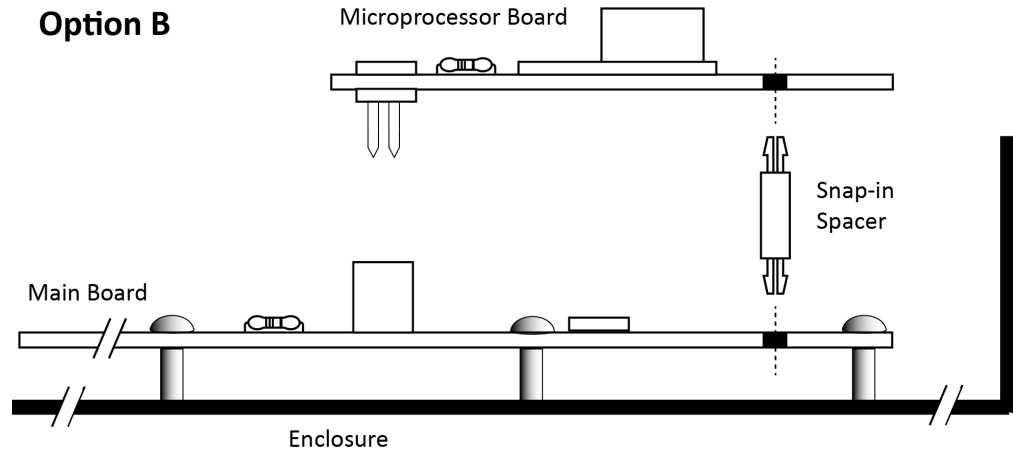


Figure 4. Option B Installation



NOTE : As a guide, align the larger hole on the microprocessor module with the top of the snap-in spacer. If aligned properly, the pins will align with the main board socket and the hole in the microprocessor board will align with the top connector of the snap-in spacer.



WARNING: Be sure not to skip or offset the pins to the socket.

5. Ensuring that the pins are properly aligned and the snap-in spacer is in place and properly aligned, press the microprocessor module firmly into the socket while simultaneously securing it to the snap-in spacer.
6. Close the door to the RD and secure the two screws.
7. Apply power to the RD and verify that it performs its initialization procedure.
8. Continue with Section 6.

6. Reconfiguring the Remote Display



IMPORTANT: A reset to factory defaults occurs automatically on the first boot up with the new module. Be sure to adjust the time, date, and communications settings afterwards. You may also choose to reconfigure any settings you may have recorded earlier in this process.

Refer to the Remote Display Instruction Manual originally shipped with your unit for detailed information about RD menus, menu navigation, and configuration settings. If you no longer have the manual that shipped with your device, the standard RD manual may be downloaded from the Bacharach website at www.mybacharach.com. If you have any questions, you may contact Bacharach's Customer Service Department.





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